Current HEI Projects

Accountability Studies: These studies seek to assess the health outcomes of air quality improvements, from both short-term interventions and longer term regulatory programs.

Recently Completed

- Impact of Emissions Changes on Air Quality and Acute Health Effects in the Southeast, 1993–2013 (Georgia Institute of Technology)

Ongoing

- Improvements in air quality and health outcomes among California Medicaid enrollees due to goods movement actions (University of California, Los Angeles)
- Quantifying marginal societal health benefits of transportation emission reductions in the United States and Canada (Carlton University, Canada)

New Solicitation (Applications closed February 15)

- Assessing Improved Air Quality and Health From National, Regional, and Local Air Quality Actions

Low Exposure Epidemiology Studies

- Identifying the shape of the association between long-term exposure to low levels of ambient air pollution and the risk of mortality: An extension of the Canadian Census Health and Environment Cohort using innovative data linkage and exposure methodology (University of British Columbia, Canada)
- Mortality and morbidity effects of long-term exposure to low-level $PM_{2.5}$, Black Carbon, NO_2 and O_3: an analysis of European cohorts (University of Utrecht, Netherlands)
- Assessing adverse health effects of long-term exposure to low levels of ambient pollution (Harvard T.H. Chan School of Public Health)

Multiple Pollutant Epidemiology Studies

- Susceptibility to Multiple Air Pollutants in Cardiovascular Disease (Drexel University)
- Long-term outdoor air pollution and cause-specific mortality in a pooled analysis of 23 Asian cohorts (Utrecht University, Netherlands)

Multicenter Ozone Study in oldEr Subjects (MOSES-Part 2)

- Effects of ozone in human volunteers exposed to low levels of ozone in a laboratory (University of California - San Francisco, University of North Carolina–Chapel Hill, University of Rochester)

Non-Tailpipe and Tunnel Studies

- Chemical and physical characterization of non-tailpipe and tailpipe emissions at 100 locations near major roads in the greater Boston Area (Harvard T.H. Chan School of Public Health)
- Real-world vehicle emission characterization for the Shing Mun Tunnel in Hong Kong and Ft. McHenry Tunnel in the US (Desert Research Institute)

Traffic Exposure and Health Studies

- Enhancing models and measurements of traffic-related air pollutants for health studies using Bayesian melding (University of Michigan)
- Traffic-related air pollution and birth weight: the roles of noise, placental function, green space, physical activity, and socioeconomic status (FRONTIER) (Barcelona Institute for Global Health (ISGlobal))
- Intersections as hot spots: assessing the contribution of localized non-tailpipe emissions and noise on the association between traffic and children's health (University of Southern California)
- Characterizing the determinants of vehicle traffic emissions exposure: Measurements and modeling of land-use, traffic, emissions, transformation and transport (North Carolina State University)
- Health effects of air pollution components, noise and socioeconomic status (HERMES) (Danish Cancer Society Research Center, Copenhagen, Denmark)

New Investigator Studies - Walter A. Rosenblith Award

- Scalable multi-pollution exposure assessment using routine mobile monitoring platforms (University of Texas–Austin)
- Understanding the impact of air quality on the chemistry of ribonucleic acids that affect human health (University of Texas-Austin)
- Scavenger receptor BI regulates oxidized lipid driven pulmonary and vascular inflammation after ozone exposure (East Carolina University)
- Air Pollution, Autism spectrum disorders, and brain imaging amongst CHildren in Europe – the APACHE project (ISGlobal, Barcelona Institute for Global Health, Barcelona, Spain)
- Composition and oxidative properties of particulate matter mixtures: effects of particle phase state, acidity, and transition metals. (Georgia Institute of Technology)
- Impact of exposure to air pollution on asthma; A multi-exposure assessment (University of Copenhagen, Denmark)
- Formation of reactive oxygen species by organic aerosols and transition metals in epithelial lining fluid (University of California, Irvine)
- Understanding the health effects of isoprene-derived particulate matter enhanced by anthropogenic pollutants (University of North Carolina)

Global Health

Recently Completed

- Burden of Disease Attributable to Coal-Burning and Other Major Sources of Air Pollution in China
- Burden of Disease Attributable to Major Sources of Air Pollution in India

Ongoing

- Targeted analysis of emissions, health impacts, and potential benefits of emissions control areas for the Shanghai/Yangtze River Delta Basin